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 (c) 2007 CSA. All rights reserved.  
 [File 36] MetalBase 1965-2007/11/12  
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Set	Items	Description
S1	281976	S WIRELESS?? OR RADIO{}NETWORK?? OR WLAN OR BLUETOOTH
S2	5961	S CENTRAL{}COMPUTER? ? OR {}CAM OR COMPUTER{}AIDED{}MANUFACTURING OR HOST{}COMPUTER? ? OR MAINFRAME? ? OR CPU OR CPUS OR CENTRAL{}PROCESSING{}UNIT? ? OR PROCESSOR? ?
S3	3997	S CONTROL{}COMPUTER? ? OR CONTROLLEE? ?
S4	21756	S TRANSMISSION{}UNIT OR UNITS OR TRANSMITTER? ? OR TRANSFONDER? ? OR TRANSCEIVER? ?
S5	11272	S MOBILE{}COMPUTER? ? OR MOBILE{}PHONE? ? OR TELEPHONE? ? OR TABLET{}PC OR COMPUTER? ? OR PERSONAL{}COMPUTER? ? OR BASED{}COMPUTER? ? OR {}POCKET OR PALM OR ULTRAMOBILE OR ULTRA{}MOBILE OR PORTABLE OR MOBILE OR HANDHELD OR HAND{}HELD{}PC OR PERSONAL{}COMPUTER? ? OR COMPUTER? ? OR LAPTOP? ? OR PDA OR PDAS OR PERSONAL{}DIGITAL{}ASSISTANT? ?
S6	10208	S CELLPHONE? ? OR CELL{}PHONE? ? OR {}MOBILE OR WIRELESS OR CELLULAR OR RADIO{}PHONE? ? OR TELEPHONE? ? OR RADIOPHONE? ? OR RADIOTELEPHONE? ?
S7	272	S SPINNING OR LOOM OF LOOMS OR WEAVING OR KNITTING OF TEXTILE
S8	488	S FINISHING OR MOLDING OR MOULDING OR MILLING OR MACHINING
S9	6497	S MANUFACTURE? OR FACTORY OR FACTORIES
S10	288	S S1 AND S2 AND S3
S11	22	S S10 AND S4
S12	9	S S7:S9 AND S11
S13	36	S S1 AND S2 AND S4 AND S7:S9
S14	2	S S13 AND S5:S6
S15	2	RD {}unique items {}not relevant}
S16	34	S S13 NOT S14
S17	23	RD {}unique items}
S18	5	S S17/2003:2004
S19	3	S S17/2005
S20	3	S S17/2006:2007
S21	12	S S17 NOT S18:S20
S22	12	SORT S21/ALL/PY.A
S23	4141	S COMPUTER{}SYSTEM? ?
S24	9	S S12W:S23 AND S7:S8

S25 59 S S1(S2)S23  
S26 4 S S7:S9 AND S25  
S27 4 S S26 NOT S13 [not relevant]  
S28 97 S (S1 AND S23 AND S7:S9) NOT (S13 OR S26)  
S29 31 S (S7/TI,DE OR S8/TI,DE OR S9/TI,DE) AND S28  
S30 30 RD (unique items)  
S31 8 S S30/2003:2004  
S32 4 S S30/2005  
S33 3 S S30/2006:2007  
S34 15 S S30 NOT S31:S33  
S35 15 SORT S34/ALL/PY,A  
S36 45 S S1 AND S3 AND S4 AND S7:S9  
S37 45 S S36 NOT (S13 OR S26 OR S39)  
S38 33 RD (unique items)  
S39 3 S S38/2003:2004  
S40 9 S S38/2005  
S41 5 S S38/2006:2007  
S42 16 S S38 NOT S39:S41  
S43 16 SORT S42/ALL/PY,A  
S44 22 S S11 NOT (S13 OR S26 OR S29 OR S36)  
S45 17 RD (unique items)  
S46 3 S S45/2003:2004  
S47 7 S S45/2005:2006  
S48 0 S S45/2007  
S49 7 S S45 NOT S46:S48  
S50 7 SORT S49/ALL/PY,A [not relevant]

22/7/3 (Item 3 from file: 323)

Fulltext available through: USPTO Full Text Retrieval Options

RAPRA Rubber & Plastics

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00641128

Title: REMOTE MONITORING SYSTEM FOR QUALITY

Source: European Plastics News ; 24, No.7, July/Aug.1997, p.37

ISSN: 0366-3534

CODEN: EUPNET Journal Announcement: 199710 RAPRA Update: 199720

Document Type: Journal Article

Language: English

Subfile: (R) RAPRA

Abstract: It is briefly reported that the Plastics Development Centre is marketing the Rotolog, a data acquisition system for rotational moulding. The Rotolog allows remote monitoring of mould internal air temperature by means of a wireless transmitter system. The collected data enables the processor to reduce and optimise cycle times, prevent over-curing, improve part quality and reduce manufacturing costs.

22/7/4 (Item 4 from file: 8)

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Ei Compendex(R)

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08289326 E.I. No: EIP99054678719

Title: Impact of real-time data communication on inventory management

Author: Yao, Andrew C.; Carlson, John G.

Corporate Source: California State Univ at Northridge, Northridge, CA, USA

Conference Title: Proceedings of the 1996 10th International Symposium on Inventory

Conference Location: Budapest, Hungary Conference Date: 19960801-19960801

E.I. Conference No.: 55953

Source: International Journal of Production Economics v 59 n 1 1999. p 213-219  
Publication Year: 1999  
CODEN: IJPECE ISSN: 0925-5273  
Language: English  
Document Type: JA; (Journal Article) Treatment: A; (Applications), E; (Economic/Cost Data/Marker Survey); T; (Theoretical)  
Journal Announcement: 9907W3  
Abstract: Many current and future distribution systems cannot tolerate data capture delays found in periodic batch processing and reporting of inventory quantities, their locations and movement. The increased inventory accuracy and timeliness of real-time data permits the whole spectrum of activities of suppliers, sales and distribution personnel and customers to be performed with confidence and improved profitability. One method of real-time data collection is via bar-coding, scanning and two-way radio frequency (RF) transmission. This provides a 'wireless connector' to the host computer no matter what type of items are being manufactured and/or distributed. RF systems integrate the technologies of automatic identification systems (AIS), bar-coding, automatic data capture (ADC) and enhance electronic data interchange (EDI) and quick response (QR) systems. Together with other subsystems, manufacturing and distribution firms are better able to control inventory operations and compete more effectively in servicing domestic and international customers. (Author abstract) 17 Refs.

35/7/6 (Item 5 from file: 8)

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Ei Compendex(E)

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07739507 E.I. No: ELP97073732003

Title: Wireless factory

Author: Colwell, Susan

Source: Industrial Computing v 16 n 4 Apr 1997. p 20-23

Publication Year: 1997

CODEN: ICOMEA ISSN: 1045-0203

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 9708N4

Abstract: Today, manufacturing technology managers are turning to wireless computing to extend their local area networks' (LANs) reach to the production line. Wireless LANs perform an analogous role to wired Ethernet networks simply by using radio frequency (RF) or optical data transmission in place of wiring. Wireless remote units communicate over airwaves with the facility's LAN server, letting production-line operators freely roam the manufacturing facility collecting real-time data and providing instant feedback to stationary LAN segments. The information being made immediately available 'at the line' will almost always lead to increase in productivity and a decrease in project time.

35/7/6 (Item 3 from file: 2)

Fulltext available through: USFTO Full Text Retrieval Options  
INSPEC

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07092663 INSPEC Abstract Number: C9901-7486-017

Title: "Four Remotes" system by microcomputer for production management of water supply in cities

Author: Gao Shuyuan; Yang Dongsheng

Author Affiliation: Comput. Technol. Inst., Acad. Sinica, Shenyang, China

Journal: Mini-Micro Systems vol.19, no.16 p. 72-7

Publisher: Mini-Micro Syst., China

Publication Date: Oct. 1998 Country of Publication: China

**CODEN:** KWJXEH ISSN: 1000-1220

**SICI:** 1000-1220(199810)15:10L 72:TRSM;1-9

**Material Identity Number:** C611-96011

**Language:** Chinese **Document Type:** Journal Paper (JP)

**Treatment:** Applications (A); Practical (P)

**Abstract:** This paper introduces the computer integrated process monitoring system, which with management and control as a whole organism, and CIPS (Computer Integrated Process System) as its goal, consists of multi-level computer system, local area network and radio network, i.e. the "Four Remotes" system by microcomputer for production management of water supply in cities, which realizes the real time monitoring and dynamic control of production management. In this paper, the general structure of the system, the structure of computer system and multi-level network, the systematic structure of control stations (substations) of different sizes, and the software development of "Four Remotes" system are all discussed. ( 3 Refs) **Subfile:** C

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35/7/11 (Item 11 from file: 8)

RI Compendex(R)

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09677569 E.I. No: EIP92266995571

**Title:** How dynamic networks work: A short tutorial on spontaneous networks

**Author:** Keatner, Wolfgang; Leopold, Markus

**Corporate Source:** Inst. für Rechnergesteuerte Automat. Technische Universität Wien, A-1040 Wien, Austria

**Conference Title:** 8th International Conference on Emerging Technologies and Factory Automation (ETFA 2001)

**Conference Location:** Antibes-Juan les Pins, France **Conference Date:** 20011015-20011018

**E.I. Conference No.:** 59166

**Source:** IEEE Symposium on Emerging Technologies and Factory Automation, ETFA v 1 2001, p 295-303

**Publication Year:** 2001

**CODEN:** ESRQAM

**Language:** English

**Document Type:** CA; (Conference Article) **Treatment:** G; (General Review)

**Journal Announcement:** 020781

**Abstract:** The current race of the information technology society to connect any device to higher networks (e.g. to the Internet), has led to various applications that were unbelievable a couple of years ago. Unfortunately, with all the increasing amount of connectivity, setup, configuration and handling of electronic devices has become more and more complex and often today's users are overwhelmed by functionality and required knowledge. To solve this problem, industry has turned to create intelligent devices, that do the interconnection work almost automatically and, therefore, are able to connect to so-called dynamic networks. At the very moment, some competitive approaches try to fight this challenge with common concepts behind, but slightly different techniques used. This paper starts with a short motivation why dynamic networks could be of interest for factory automation systems, too. Afterwards, we provide a tutorial on up-to-date spontaneous networks. We start with an insight into the approach proposed by Sun Microsystems, called Java Intelligent Network Infrastructure, followed by a quick overview on Microsoft's approach, called Universal Plug and Play. Next, a proposed standard for wireless communication, called Bluetooth, is presented. Finally, we show some dynamic features of the well-known Common Object Request Broker Architecture. 22 Refs.

35/7/13 (Item 13 from file: 8)

RI Compendex(R)

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08998476 E.I. No: E1P62056845253  
Title: Factory monitoring and control using the internet  
Author: Weaver, Alfred C.  
Corporate Source: Department of Computer Science University of Virginia, Charlottesville,  
VA 22904, United States  
Conference Title: 27th Annual Conference of the IEEE Industrial Electronics Society  
IECON 2001  
Conference Location: Denver, CO, United States Conference Date: 20011129-20011202  
Sponsor: IEEE  
E.I. Conference No.: 58959  
Source: IECON Proceedings (Industrial Electronics Conference) v 1 2001. p 1635-1645 (IEEE  
cat n 01CH37243)  
Publication Year: 2001  
CODEN: IEPCRA  
Language: English  
Document Type: CA: (Conference Article) Treatment: A: (Applications)  
Journal Announcement: 0202W1  
Abstract: In this one-hour tutorial we explore the premise that the Internet and the  
World Wide Web, when combined with the software tools developed to support electronic  
commerce, are the enabling factors for achieving remote **factory** monitoring and control  
(and, ultimately, industrial control in general). We look briefly at the issues of system  
architecture; web protocols and services; wired and wireless access; Java programming;  
Jini lookup services; multimedia; multicast; privacy and security; reliability; **factory**  
monitoring; instrument control; and the research challenges for fast, closed-loop, real-  
time control. 10 Refs.

35/7/14 (Item 14 from File: 23)  
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0087953813 IP Accession No: 260702-90-023413  
Engineering component-based net-centric systems for embedded applications  
Jannke, Jens H  
ACM SIGSOFT Software Engineering Notes , v 26 , n 5 . p 318-328 . Sept. 2001  
Publication Date: 2001  
Publisher: Association for Computing Machinery, Inc. , One Astor Plaza, 1515 Broadway ,  
New York , NY , 10036-5701  
Country Of Publication: USA  
Publisher Url: <http://www.acm.org/>  
Publisher Email: [SIGSOFT@acm.org](mailto:SIGSOFT@acm.org)  
Document Type: Journal Article  
Record Type: Abstract  
Language: English  
ISBN: 1581133901  
DOI: [10.1145/503271.503239](https://doi.org/10.1145/503271.503239)  
File Segment: Computer & Information Systems Abstracts  
Abstract:  
The omnipresence of the Internet and the World Wide Web (Web) via phone lines, cable-TV,  
power lines, and wireless RF devices has created an inexpensive media for telemonitoring  
and remotely controlling distributed electronic appliances. The great variety of  
potential benefits of aggregating and connecting embedded systems over the Internet is  
marred by the currently unsolved problem of how to design, test, maintain, and evolve  
such heterogeneous, collaborative systems. Recently, component-oriented software  
development has shown great potential for cutting production costs and improving the  
maintainability of systems. We discuss component-oriented engineering of embedded control  
software in the light of emerging requirements of distributed, net-centric systems. Our

approach is based on applying the graphical specification language SDL for composing complex networks of embedded software components. From the SDL specification, we generate internet-aware connector components to local embedded controller networks. The described research is carried out in a collaborative effort between industry and academia.

35/7/15 (Item 15 from file: 23)

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0006441378 IP Accession No: 200307-52-0841  
The dymbioses of Cologne.  
Automobil Industrie , v 47 , n 12 , p 64-66 , Dec. 2002  
Publication Date: 2002  
Publisher: Vogel-Verlag und Druck KG , Max-Planck-Str. 7/9 , Wurzburg , 97082  
Country Of Publication: Germany  
Publisher Url:  
<http://www.vogel-automedien.de>  
Document Type: Journal Article  
Record Type: Abstract  
Language: German  
ISSN: 0005-1366  
File Segment: Mechanical & Transportation Engineering Abstracts  
Abstract:

At the Ford plant in Cologne, where the Fiesta and the Focus models are assembled, two entire transport lines have been built, installed, are operated and maintained by the Firm of Eisenmann, with Mr. Wolf-Hasso Schaefer in charge. Fiesta and Focus are transported in every conceivable mix upon the two identical, but totally separate assembly lines. Each hanging module and those running long tracks on the plant floor are identifying themselves with attached transponders in wireless touch with the computer system. One car of each model rolls out the door every 60 seconds. The modules move along at anything between 20 and 60 meters/minute. The assembly crew rides along with each car, marrying the body to the power train, installing doors and, from and by the vendor that built them, rear axles and interiors. This system is labeled "best practice" by Ford and has also been installed in the Ford Focus plant in St. Louis, where the change-over of the chassis line was accomplished in only three weeks.

43/7/2 (Item 3 from file: 2)

Fulltext available through: USFTO Full Text Retrieval Options  
INSPEC  
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07807775 INSPEC Abstract Number: B9810-6250-012, C9810-7160-005  
Title: Radio data transmission system for industrial networks  
Author Cabao, D.; Fojcik, M.; Malysiak, K.; Zielinski, B.  
Journal: Zeszyty Naukowe Politechniki Slaskiej, Seria: Informatyka no.32 p. 479-92  
Publisher: Wydawnictwo Politech. Slaskiej ,  
Publication Date: 1997 Country Of Publication: Poland  
CODEN: ZNPIET ISSN: 0208-7286  
SICI: 0208-7286(1997)32L:479-RDTE;1-N  
Material Identity Number: R071-58006  
Language: Polish Document Type: Journal Paper (JP)  
Treatment: Practical (P)

Abstract: Industrial networks usually use wires to connect the controllers. In some cases it is better to use wireless connections. Introduction of wireless transmission media should be invisible either for users or for the network. This condition is satisfied when a transmission protocol converter is applied. An idea of a protocol converter is

presented. The protocol converter has been created to be used in industrial networks like Modbus, Profibus and N-10. The converter uses a radio transceiver that has special requirements for transmitted data format. These requirements are satisfied by a radio frame format. The converter has been applied to create an experimental Modbus segment. It was tested for its transparency to the transmitted characters. It was also tested for its influence upon time parameters of the network. The results of these tests are presented.

( 13 Pafs) Subfile: B C

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43/7/3 (Item 9 from file: 8)

Ei Compendex(P)

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092373977 E-I. No: EIP03187455280

Title: Reliable wireless networks for industrial applications

Author: Poor, Robert; Hodges, Brant

Corporate Source: Embur Corporation, Boston, MA 02210, United States

Conference Title: ISA 2002 Technology Updates Volume LVII Part I

Conference Location: Chicago, IL, United States Conference Date: 20021021-20021023

Sponsor: ISA

E.I. Conference No.: 60902

Source: ISA TECH/EXPO Technology Update Conference Proceedings v 422 2002. p 749-750

Publication Year: 2002

CODEN: ITUPPX ISSN: 1054-0032

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications)

Journal Announcement: 0305W2

Abstract: Wireless industrial systems have mostly used "cellular phone" style radio links, using Point-to-Point or Point-to-Multipoint transmission. Both formats have substantial liabilities in industrial applications: rigid structure, meticulous planning requirements, and dropped signals. In contrast, wireless mesh networks are referred to as ad hoc, multi-hop networks and can be described as "point-to-point-to-point" systems. They can be dropped in place with minimal preparation and provide a reliable, flexible system that can be extended to thousands of devices.

43/7/16 (Item 16 from file: 67)

World Textiles

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00154818 World Textile No: 8804327 Subfile: BTTC (Shirley Institute)

Wireless (radio-controlled) let-off and take-up control system

Author(s): Sawakoma Corp.; Yamada S.

Corporate Source: TOUDAIKOMA LTD

Document Type: Patents ; Patent

Record Type: ABSTRACT

Patent No: EP 0 262 683

Priority Application: 6 April 1996 Priority application: Japan, 153022/86, 3 October 1986.

Languages: ENGLISH

The radio control of warp let-off and take-up comprises a portable transmitter and receivers associated with the controller on a loom to adjust let-off or take-up. One operator can watch several warps and can vibrate warps to move them smoothly past the drop wires, bails of boddies and feed in preparing a new warp. International Patent Classification D03E.

Classification Code(s) And Description:

[File 9] Business & Industry(R) Jul/1994-2007/Nov 12  
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 [File 160] Gale Group PROMT(R) 1972-1989  
 (c) 1999 The Gale Group. All rights reserved.  
 [File 16] Gale Group PROMT(R) 1996-2007/Nov 14  
 (c) 2007 The Gale Group. All rights reserved.  
 [File 148] Gale Group Trade & Industry DB 1976-2007/Nov 08  
 (c) 2007 The Gale Group. All rights reserved.  
 [File 621] Gale Group New Prod. Annou. (R) 1985-2007/Nov 09  
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 [File 15] ABI/Inform(R) 1971-2007/Nov 14  
 (c) 2007 ProQuest Info&Learning. All rights reserved.  
 [File 635] Business Dateline(R) 1985-2007/Nov 15  
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 [File 636] Gale Group Newsletter DB(TM) 1987-2007/Nov 13  
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 [File 47] Gale Group Magazine DB(TM) 1959-2007/Oct 31  
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 [File 775] Gale Group Computer DB(TM) 1983-2007/Nov 13  
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 [File 647] CMP Computer Fulltext 1988-2007/Nov W1  
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 [File 674] Computer News Fulltext 1989-2006/Sep W1  
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Set	Items	Description
S1	2203975	S WIRELESS?? OR RADIO( )NETWORK?? OR WLAN OR BLUETOOTH
S2	167368	S CENTRAL( )COMPUTER?? ? OR (CAM OR COMPUTER( )AIDED( )MANUFACTURING OR HOST( )COMPUTER?? ? OR MAINFRAME? ? OR CPU OR CPUS OR CENTRAL( )PROCESSING( )UNIT? ? OR PROCESSOR? ?
S3	77512	S CONTROL( )COMPUTER?? ? OR CONTROLLER? ?
S4	90416	S TRANSMISSION( )UNIT OR UNITS) OR TRANSMITTER? ? OR TRANSPONDER? ? OR TRANSCIVER? ?
S5	454836	S MOBILE( )COMPUTER?? ? OR MOBILE( )PHONE? ? OR TELEPHONE? ?) OR TABLET( )PC OR COMPUTER?? ? OR PERSONAL( )COMPUTER?? ? OR PDA( )COMPUTER?? ?) OR (POCKET OR PALM OR ULTRAMOBILE OR ULTRA( )MOBILE OR PORTABLE OR MOBILE OR HANDHELD OR HAND( )HELD( )PC OR PERSONAL( )COMPUTER?? ? OR COMPUTER? ?) OR LAPTOP? ? OR PDA OR PDAS OR PERSONAL( )DIGITAL( )ASSISTANT? ?
S6	597659	S CELLPHONE? ? OR CELL( )PHONE? ? OR (MOBILE OR WIRELESS OR CELLULAR OR RADIO( )PHONE? ? OR TELEPHONE? ?) OR RADIOPHONE? ? OR RADIOTELEPHONE? ?
S7	14410	S SPINNING OR LOOM OR LOOMS OR WEAVING OR KNITTING OR TEXTILE
S8	11043	S FINISHING OR MOLDING OR MOLDING OR MILLING OR MACHINING
S9	894614	S MANUFACTURE? OR FACTORY OR FACTORIES
S10	345	S S1(S)S2(S)S3(S)S4
S11	0	S S7,S8(S)S10
S12	36	S S5(S)S10
S13	17	RD (unique items)
S14	2	S S13/2003-2004
S15	3	S S13/2005-2006
S16	3	S S13/2007
S17	9	S S13 NOT S14:S16
S18	9	SORT S17/ALL/PD,A (not relevant)
S19	4698	S S1(S)S2:S3(S)S4
S20	1249	S S19 AND (S7/TI,DE OR S8/TI,DE OR S9/TI,DE)
S21	2	S S19 AND S7/TI,DE
S22	0	S S19 AND S8/TI,DE



S23 2 S S19 AND S8/DE  
S24 4 S S21-S23 NOT S12  
S25 4 RD (unique items) [not relevant]  
S26 145 S S30 AND S19(S195:06  
S27 145 S S26 NOT 1612 OR S21 OR S23)  
S28 48 RD (unique items)  
S29 1 S S28/2003:2004  
S30 1 S S28/2005  
S31 8 S S28/2006:2007  
S32 58 S S28 NOT S29:S31  
S33 58 SORT S32/ALL/PD,A

33/3,K/30 (Item 32 from file: 148)

Gale Group Trade & Industry DE

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12520756 Supplier Number: 63184312 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Living in a wireless wonderland. (Industry Trend or Event)

Prophet, Graham

EDN , 45 , 12 , 79

June 5 , 2000

ISSN: 0012-7515

Language: English

Record Type: Fulltext

Word Count: 6297 Line Count: 60509

...device functions as the master, and the other functions as the slave, so a "star" topology is a better description.)

#### FORM FACTORS AND SPARE MIPS

Bluetooth hardware is not a one-size-fits-all situation. You can buy a range of options, such as building the RF (transceiver) portion of the terminal on a stand-alone chip or into a module. You can add a baseband chip or a single-chip system with...

...the decision depends on how much processing power you have to spare in the host system's microprocessor. Running the baseband-processing requirement of a Bluetooth terminal takes a few MIPS, depending on the processor and its definition of MIPS. If you have, say, 5 MIPS to spare, you could run baseband software on hardware. Most semiconductor vendors are heading toward an integrated solution, anticipating that volume Bluetooth applications will be add-on functions to hosts such as cell phones and palm computers that incorporate their own processor cores. Most hosts now use a variant of the ubiquitous ARM 7.

The Bluetooth SIG Web site extensively describes the Bluetooth protocol stack, but it...

...controller and the application's controller, depending on available resources throughout the entire system.

(Figures 1-2 ILLUSTRATION OMITTED)

#### BLUETOOTH BEGINS TO BYTE

Ericsson developed Bluetooth, and it is no surprise that Ericsson offers many Bluetooth hardware products. In 1999, it announced the PBR 313 01/2 16.2 x 14.0 x 1.6-mm radio transceiver, a small substrate with solder balls for BGA mounting. It carries an RF ASIC from Ericsson's wafer-fabrication facility in Vista, Sweden, plus a... with a suitable ground plane, the solder balls around the side complete a "cage." Therefore, the assembly is self-screening. Ericsson also sells a complete Bluetooth-radio module that uses the radio together with a 12-MHz crystal and baseband processor in a complete system that will output data to Universal Serial Bus (USB), UART, or PCM ports. The baseband

processor is based on an ARM core; the package includes basic software. The module comes with a screening can to make it a drop-in system... sample quantities from Matsushita (Panasonic) in September 2000.

Other sources of current and forthcoming semiconductor support include a chip set from Atmel/Temic (see "Bluetooth package covers 10m range," EDN Europe, December 1999, pg 16). Atmel will shortly partner its T2901 radio transceiver with a baseband controller and with Atmel flash memory on a multichip module that will form part of a complete reference design; this device also integrates an antenna. Atmel... radio module will later be an open-market product.

Also look also for products from Lucent, including a single-chip radio subsystem and a baseband controller, complete with protocol software. The W7020 low-power Bluetooth radio subsystem interfaces directly to the W7400 baseband controller and an antenna. The W7020 uses an integrated RF-transceiver IC and a flip-chip mounted onto a ceramic substrate, which results in a 10x14-mm footprint for the subsystem and eliminates the need for external RF components. Sample engineering quantities and development tools for the W7020 are now available. The W7400 Bluetooth baseband controller performs all link-management and control functions and includes both USB and serial interfaces to host applications. Lucent based the device on an ARM 7TDMI RISC core and a link-controller ASIC that supports all Bluetooth 1.0 packet types. Lucent supplies the software-protocol stack.

Among announcements made at February's CeBIT conference in Hannover, Germany, was one by Cadence...

**NAICS Codes:**

31421 Telephone Apparatus Manufacturing; 51121 Software Publishers

12/3,K/42 (Item 42 from file: 16)

Gale Group PPGMT(P)

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08132944 Supplier Number: 67884826 (USE FORMAT 7 FOR FULLTEXT)

Wireless automation in facilities; real-time alarm management.

Gillingham, Chuck

Engineer's Digest , v 28 , n 11 , p 37

Nov , 2000

Language: English Record Type: Fulltext

Document Type: Magazine/Journal ; Trade

Word Count: 1162

...industrial communication standards such as OPC make enterprise data sources readily available to mobile devices and their users. The vast majority of installed programmable logic controllers, distributed control systems, loop controllers, SCADA (supervisory control and data acquisition) systems, building automation systems, field transmitters, and intelligent devices already communicate using the OPC standard. These OPC data and alarm/event servers provide real-time information that can be sent via wireless communications to many different targets, including browsers, PDAs, Pocket PCs, and "mini-browsers" on WAP phones. This capability means that instantaneous process data or equipment data may be served directly from the existing... flow, level, pressure, and temperature-sensor manufacturers that are embedding both OPC and web servers inside the sensing equipment itself and enabling these devices with wireless communications. Advanced OPC client software and Internet browsers can provide feature-rich solutions offering two-way mobile communications: OPC "plug-and-play" with your existing...

**NAICS Codes:**

33421 (Telephone Apparatus Manufacturing

33/3,K/45 (Item 45 from file: 16)

Gale Group PR0MT(61

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08129298 Supplier Number: 67833414 (USE FORMAT 7 FOR FULLTEXT)

Laying The Groundwork For The Next Generation. (Industry Trend or Event)

Mayer, John R.

Electronic Buyers' News , p 60

Dec 11, 2000

Language: English Record Type: Fulltext

Document Type: Magazine/Journal ; Trade

Word Count: 3393

. Eastern markets like China, Majid said.

Infineon recently announced Full Type Approval for a dual-band GSM/GPRS reference design developed by its subsidiary, Danish Wireless Design. The system platform is built around three Infineon chips: the E-Gold baseband controller, the Smart+ FF transceiver, and the E-power power-management IC. Supporting software was developed by Comcon.

"With this reference design, so OEM can basically purchase our solution, wrap according to the Mountain View, Calif., research firm.

In late September, Motorola introduced a digital-transceiver IC with those applications in mind. The software-programmable BICMOS MC12760 functions over a range of input frequencies to support multiple wireless standards, including AMPS, LCS, GPRS, GSM, and TDMA. The device links directly to Motorola's baseband processors through a common programming and data interface. Motorola expects to see the IC used not only in cellular handsets, but PDAs, satellite phones, LDEN, and TETRA radios as well.

The MC12760 introduces a high-performance BICMOS process that allows the device to operate at 2.75...

**NAICS Codes:**

33421 (Telephone Apparatus Manufacturing); 33429 (Other Communications Equipment Manufacturing



AbstractPlus - Print Format

## Feasibility and protocol for wireless communication of multiplemobile terminals in factory automation

Songshu Jiang, Wanbo Wang  
Dept. of Electr. Eng. & Technol., Natl. Yunnan Inst. of Technol.

This paper appears in: **Industrial Electronics, Control, and Instrumentation, 1998. Proceedings of the 1998 IEEE**

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Publication Date: 5-10 Aug. 1998

Volume: 2 On page(s): 926-933 vol.2

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Location: Taipei, Taiwan

ISBN: 0-7803-2775-0

References: Cited: 14

INSPEC Accession Number: 5539394

ECON 19 1108/IECON 1998 563002

Posted online: 2002-08-06 20:46:37.0

### Abstract

This paper studies a CDMA wireless access infrastructure for a factory with several mobile terminals. Factory manufacturing floor usually forms several "islands of automation" with each having multiple mobile terminals. Each island of information can then be covered by a base station which is attached to the supervisory computer (command center). Based on a star topology structure, we propose a wireless access protocol and develop a mathematical model to evaluate its performance. The mathematical model uses several Markov chains which can model the dynamic behavior of the CDMA channel. The numerical results show that it performs much better than other random access schemes such as the Aloha protocol in terms of the packet loss rate and delay performance.

### Index Terms

Inspec

### Controlled Indexing

Markov processes; code division multiple access; factory automation; mobile radio; packet radio; networks; wireless LAN

### Non-controlled indexing

CDMA wireless access infrastructure; Manufacturing Automation Protocol; Markov chains; base station; command center; delay performance; factory automation; manufacturing floor; mathematical model; multiple mobile terminals; packet loss rate; protocol; random access schemes; supervisory computer; wireless LAN; wireless access protocol; wireless communication

[File 356] Derwent WPIX 1963-2007/00=200772  
 (c) 2007 The Thomson Corporation. All rights reserved.  
 [File 347] JAPVO Dec 1976-2007/Jun(Updated 070926;  
 (c) 2007 JPO & JAPVO. All rights reserved.  
 See Items Description  
 S1 170179 S WIRELESS? OR RADIO? NETWORK? OR WLAN OR BLUETOOTH  
 S2 20160 S CENTRAL? COMPUTER? ? OR (CAM OR COMPUTER)AIDED? MANUFACTURING OF  
 HOST? COMPUTER? ? OR MAINFRAME? ? OR CPU OR CPUS OF CENTRAL? PROCESSING? UNIT? ? OF  
 PROCESSOR? ?  
 S3 24997 S CONTROL? COMPUTER? ? OR CONTROLLER? ?  
 S4 32843 S TRANSMISSION? (UNIT OR UNITS) OR TRANSMITTER? ? OR TRANSPONDER? ? OF  
 TRANSCIVER? ?  
 S5 32008 S MOBILE? COMPUTER? ? OR MOBILE? (PHONE? ? OR TELEPHONE? ?) OR  
 TABLET? (PC OR COMPUTER? ? OR PERSONAL? COMPUTER? ? OR BASED? COMPUTER? ?) OF (POCKET OR  
 PALM OR ULTRAMOBILE OR ULTRA)MOBILE OF PORTABLE OR MOBILE OR HANDHELD OR  
 HAND? HELD? (PC OR PERSONAL? COMPUTER? ? OR COMPUTER? ?) OR LAPTOP? ? OR PDA OR PDAS OR  
 PERSONAL? DIGITAL? ASSISTANT? ?  
 S6 36400 S CELLPHONE? ? OF CELL? (PHONE? ? OR (MOBILE OR WIRELESS OR CELLULAR OR  
 RADIO) (PHONE? ? OF TELEPHONE? ?) OR RADIOPHONE? ? OR RADIOTELEPHONE? ?  
 S7 106 S SPINNING OR LOOM OR LOOMS OF WEAVING OR KNITTING OR TEXTILE  
 S8 464 S FINISHING OR MOLDING OR Moulding OR MILLING OR MACHINING  
 S9 637 S FACTORY OR FACTORIES  
 S10 492 S S1(S)S2(S)S3(S)S4  
 S11 4 S S7:S9 AND S15  
 S12 23763 S IC=(H04M? OF G05B?)  
 S13 1023 S M0=(T01-J07A3 OR T01-J07B OR T06-A01B? OR T06-A11 OR T06-D03C OF X25-  
 T02 OR F03-K02)  
 S14 88 S S10 AND S12:S13  
 S15 23 S S2:S6(S)S10 AND S14  
 S16 71 S S15 NOT S11  
 S17 273 S (S2:S3(S)S4(S)S1(S)S2(S)S3  
 S18 52 S S1? AND (S7:S9 OR S12:S13)  
 S19 40 S S18 NOT (S11 OR S15)  
 S20 11 S S1(S)S2(S)S4 AND (S7/T1 OR S8/T1 OR S9/T1)  
 S21 9 S S20 NOT (S11 OR S15 OR S18)  
 S22 6 S S1(S)S2(S)S4(S)S7:S8  
 S23 3 S S2? NOT (S11 OR S15 OR S18 OR S20) {too recent}  
 S24 25 S S1(S)S2(S)S3 AND S13  
 S25 26 S S24 NOT (S11 OR S15 OR S18 OR S20 OR S22)

11/3/1 (Item 1 from file: 356)

Derwent WPIX

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0014345435 Drawing available

WPI Acc No: 2004-513544/200451

XRAM Acc No: C2004-194212

XRP Acc No: N2004-422660

System gathering production data from textile machines connects control computers

wirelessly to transmitter connected to central computer

Patent Assignee: SPEICH F (SPEI-I); TEXTILMA AG (TEXTI)

Inventor: SPEICH F

Patent Family ( 7 patents, 106 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004053604	A1	20040624	WO 200307799	A	20031203	200451	B
AU 2002081903	A1	20040630	AU 2003201901	A	20031203	200472	E
EP 1574327	A1	20050907	EP 2003773418	A	20031203	200553	E

			WO 200307799	A	20031203		
US 20060079216	A1	20060413	WO 200307799	A	20031203	2006236	E
			US 2005537023	A	20050601		
CN 1726443	A	200609125	CN 200180105803	A	20031203	2006239	E
EP 1570123	B1	200611023	EP 2003773418	A	20031203	2006777	E
			WO 200307799	A	20031203		
US 2278125	T1	20070601	EP 2002773418	A	20031203	200738	E

Priority Applications (no., kind, date): CH 20021210 A 20021211

11/25.W/4 (Item 4 from file: 350)

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0005157363

WPI Acc No: 1590-157400/159021

XRPX Acc No: N1990-122365

Communications data, maintenance diagnostic and training system - has hand-held unit and infrared communication satellite to provide for data interchange between computers

Patent Assignee: TEXAS INSTR INC (TEXI)

Inventor: LUEDEKE W R; MCCAIN J, MCCAIN J H; WEBB, WEBB E R

Patent Family (7 patents, 6 countries)

Patent Number	Kind	Date	Update	Type
EP 369188	A	19900523	199021	B
JP 2257721	A	19901018	199048	E
US 5305351	A	19940503	199417	E
EP 369188	B1	19951227	199605	E
DE 68925271	E	19950208	199611	E
US 6129449	A	20001010	200052	E
US 4230482	B1	20011211	200204	E

EP 369188

Local Applications (no., kind, date): EP 1989119495 A 19891020; JP 1989301614 A 19891027; US 1988263678 A 19881027; US 1991808036 A 19911212; US 1992939565 A 19920902; EP 1989119495 A 19891020; DE 68925271 A 19891020; EP 1989119495 A 19891020; US 1988263679 A 19881027; US 1991808036 A 19911212; US 1992939565 A 19920902; US 199390362 A 19930712; US 1992939565 A 19920902; US 1994298540 A 19940830  
 Priority Applications (no., kind, date): US 1988263679 A 19881027; US 1991808036 A 19911212; US 1992939565 A 19920902; US 199390362 A 19930712; US 199390362 A 19930712; US 1994298540 A 19940830; US 1995389087 A 19950214

#### Alerting Abstract EP A

The hand held device includes a microprocessor that has an architecture that supports a 8-bit data bus and an address bus capable of direct access to one megabyte of RAM memory including 64 kbytes of Input/Output space mapped into low order RAM memory. The architecture may be logically expanded to 16 and 32 bit devices. A boot ROM contains initialization and system configuration information which is used at power turn-on. A DRAM of dynamic random access memory space is used for storage for operating programs. Page mode EPROM devices are mapped into the I/O space and can be used to store up to 256 Kbytes of user program. These devices are configured as a ROM-disk device by the system software. A liquid crystal display operates in conjunction with an LCD control methodology. The LCD control includes two LCD controllers operating synchronously to provide split screen operation, providing capability if simultaneous text and graphics display.

A Display Touch Scanner is used to scan the surface of the display to determine where and when the display has been touched, to provide touch input to the system, and to control the operation sequence for various applications of the invention. An optical compact disc

(CD) provides a vast storage for supporting a data base used in the invention.  
USE/ADVANTAGE - Data such as text and graphic information is stored for use in applications such as training, maintenance, and repair of equipment. The graphic information may be displayed in static or animated form.

**Equivalent Alerting Abstract** ...A data and communications system, comprises, a host computer interconnected with a network of interface units connecting other computers and factory machine/process controllers. The network of interface units includes an infrared link in a wireless network which includes at least one satellite unit including a transmitter for transmitting data via infrared signals, and a receiver for receiving data via infrared signals. An encoder/decoder identifies from which unit data is received or to which unit data is to be sent and implements or removes the encoding protocol of the data stream. A controller unit processes data relayed through the satellite and controls the operation of the wireless network... One of the self-contained portable computing units. The infrared link communicates with a self-contained portable computing unit for two-way communication with the host computer, other computers and machine/process controllers, and a communications link provides for two-way data transfer and control between each of the host computer, other computers, machine/process controllers and the self-contained portable computing unit... USE - For providing interchange of data between host computer, individual personal computers, factory machinery, including process controllers, a portable computing unit, and other controller/computing equipment and devices.

**Original Abstracts:**...is used to provide for the interchange of data between a host computer (13), individual personal computers (15), the hand-held computing unit (17) and factory machinery, including process controllers... Infrared communication satellite is used to provide for the interchange of data between a host computer, individual personal computers, the hand-held computing unit, and factory machinery, including process controllers...

**Claims:** 1. A data and communication system providing interchange of data between a host computer (13), individual personal computers (15), factory machinery, including process controllers (14), a portable computing unit (17), and other controller/computing equipment and devices, said system comprising a host computer (13) interconnected with a network of interface units (12) connecting other computers (15) and factory machine/process controllers (14, 16), said network of interface units includes an infrared link in a wireless network which includes at least one satellite unit (10), including a transmitter (21) for transmitting data via infrared signals, a receiver (22) for receiving data via infrared signals, an encoder/decoder (23) to identify from which unit data is received or to which unit data is to be sent and to implement or remove the encoding protocol of the data stream, a controller unit (24) for processing data relayed through the satellite and controlling the operation of the wireless network, and one or more interface circuits (12) for interfacing the satellite (10) with various communications networks, said satellite unit (10) coupled to the network... self-contained portable computing units (17), said infrared link for communicating with a self-contained portable computing unit (17) for two-way communication with said host computer (13), other computers (15) and machine/process controllers (14, 16) a communication link providing for two-way data transfer and control between each of said host computer (13), other computers (15), machine/process controllers (14, 16) and said self-contained portable computing unit (17), the system being characterized in that said satellite unit (10) further includes alarm circuits interconnected with said machine/process controllers (14, 16) to indicate a machine/process out-of-parameter indication, an interface circuit with said alarm circuit for communicating an alarm signal to the... A data and communications system useful for providing interchange of data between a host computer, individual personal computers, factory machinery, including process controllers, a portable computing unit, and other controller/computing equipment

and devices, comprising, a host computer interconnected with a network of interface units connecting other computers and factory machine/process controllers, said network of interface units includes an infrared link in a wireless network which includes at least one satellite unit including a transmitter for transmitting data via infrared signals, a receiver for receiving data via infrared signals, an encoder/decoder to identify from which unit data is received or to which unit data is to be sent and to implement or remove the encoding protocol of the data stream, a controller unit for processing data relayed through the satellite and controlling the operation of the wireless network, and one or more interface circuits for interfacing the satellite with various communications networks, said satellite unit coupled to the network of interface units... .. of the self-contained portable computing units, said infrared link for communicating with a self-contained portable computing unit for two-way communication with said host computer, other computers and machine/process controllers, and a communications link providing for two-way data transfer and control between each of said host computer, other computers, machine/process controller and said self-contained portable computing unit... .. adapted to execute a program and for communication with said host computer, a communications link for data transfer and control between said host computer, a factory controller to control a factory environment, and a network of interface units to couple said self-contained portable computer, and wherein said network of interface units includes an infrared link for communicating with said portable computer, wherein said data and communication system further comprises a wireless network and wherein said infrared link includes at least one satellite unit coupled to the network of interface units for communicating with said self-contained portable computer, wherein the satellite unit includes a transmitter for transmitting data via infrared signals, a receiver for receiving data via additional infrared signals, an encoder/decoder to identify said satellite unit and to implement or remove the encoding protocol of the data, a controller unit for processing data relayed through the satellite unit and controlling the operation of the wireless network, and an interface circuit for interfacing the satellite unit to communicate with a communication network.

16/25,K/16 (Item 16 from file: 350)

Derwent WPIX

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0013117075 Drawing available

WPI Acc No: 2003-198766/200319

KRPX Acc No: N2003-157988

Work processes digitization system for power plant, has wireless network server system including database for storing application data accessible by mobile user

Patent Assignee: ROUSE M B (ROUSE-1); RAO K K (RAO-1); TRAVALY A J (TRAV-1); GENERAL ELECTRIC CO (GENE)

Inventor: ROUSE M B; RAO K K; TRAVALY A J

Patent Family ( 2 patents, 1 countries )

Patent Number	Kind	Date	Update	Type
US 20020159441	A1	20021031	200319	B
US 7266425	B2	20070904	200753	E

US 20020159441

Local Applications (no., kind, date): US 2001844270 A 20010430; US 2001844270 A 20010430

Priority Applications (no., kind, date): US 2001844270 A 20010430

#### Alerting Abstract US A1

NOVELTY - An interface device (14) is coupled to a processor system (12) that controls a gas turbine for communicating data to a mobile computing system (18) and a wearable computer (16) carried by user (17). A wireless network server system (50) coupled to an antenna assembly (30), has a database for storing the application data accessible by mobile user.



**DESCRIPTION - INDEPENDENT CLAIMS** are included for the following:

Power plant controlling method; and  
Wireless network.

**USE** - For digitization of work processes in a power plant having a gas turbine, through the use of wireless network (claimed).

**ADVANTAGE** - Since the wireless network server system stores application data accessible by mobile user, the system enhances the productivity of field engineers and allows a single engineer to operate the power plant and simultaneously inspect the power plant.

**DESCRIPTION OF DRAWINGS** - The figure shows the schematic illustration of the power plant inspection and control procedure.

12 Processor system

14 Interface device

16 Wearable computer

17 Mobile user

18 Mobile computing system

30 Antenna assembly

50 Wireless network server system

**Original Abstract:** A system for digitization of work processes in a power plant having a gas turbine including at least one processor system having a controller. The processor receives power plant data and the controller preferably controls the gas turbine. At least one interface device is communicatively coupled to the processor system for communicating the data received from the processor system to at least one of a mobile computing system and a computer system carried by a mobile user. The controller is capable of receiving instructions from the mobile user to control the gas turbine. The system further includes a local area network (LAN) in communication with the at least one interface device. At least one antenna assembly having a transceiver system for transmitting and receiving signals from the at least one interface device is provided. A network server system is communicatively coupled to the at least one antenna assembly via a wireless communication network, the server computer including a database for storing application data accessible by the mobile user. . .

**Claims:** What is claimed is: 1. A system for digitization of work processes in a power plant having a gas turbine, comprising: at least one processor system having a controller, said at least one processor receiving power plant data, and said controller controlling said gas turbine; at least one interface device communicatively coupled to said processor system for communicating the data received from the processor system to at least one of a mobile computing system and a computer system carried by a mobile user; said controller capable of receiving instructions from the mobile user to control the gas turbine; a local area network (LAN) in communication with said at least one interface device; at least one antenna assembly having a transceiver system for transmitting and receiving signals from the at least one interface device; and a network server system communicatively coupled to said at least one antenna assembly via a wireless communication network, said server computer including a database for storing application data accessible by the mobile user. . . . claimed is: 1. A system for digitization of field service engineering work processes in a power plant having a gas turbine, comprising: at least one processor system having a controller, said at least one processor system receiving power plant data, and said controller controlling said gas turbine; at least one wireless communications interface device communicatively coupled to said at least one processor system for wirelessly communicating the data received from the power plant by the processor system to at least one of a wireless mobile computer system or a wireless computer device carried by a mobile user, said controller configured to receive instructions from at least one of said wireless mobile computer system or said wireless computer device carried by a mobile user to control the gas turbine, enabling field service engineering work processes including inspection, monitoring and controlling a power plant gas turbine to be performed using said mobile computer system or said wireless computer system carried by said mobile user; a local area network (LAN)

including at least one **wireless network** comprising a **wireless hub router** and one or more **wireless communication devices** wherein at least one of said **wirelessly communication devices** is the **wireless computer device** carried by said mobile user; a **voice-over-internet-protocol (VOIP) gateway** coupled to said LAN; at least one **terrestrial orbiting satellite antenna assembly** having a **transceiver system** for **transmitting and receiving signals** from said at least one **wireless communications interface device**; and a **network server computer system** communicatively coupled to said at least one **terrestrial orbiting satellite communications antenna assembly** via a wide... of field service engineering processes enables a mobile user moving on site at a power plant location remote from the network server computer system to **wirelessly communicate** with both said gas turbine controller and said network server and to engage in two-way voice communications with other remote users communicatively coupled to said system for digitization by using ..

19/25, M/35 (Item 15 from file: 359)

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0012437257 Drawing available

WPI Acc no: 2002-382547/200241

Related WPI Acc No: 1999-448032; 2000-336839; 2001-024340; 2001-366587; 2001-416523; 2001-457133; 2001-646979; 2002-609859; 2002-279826; 2002-350700; 2002-350795; 2002-415401; 2002-415402; 2002-415403; 2002-442981; 2002-673107; 2003-039528; 2003-118589; 2003-695903; 2003-754935; 2003-800075; 2003-842592; 2004-297943; 2004-496981; 2005-010011; 2005-239650; 2005-401488; 2005-628511; 2005-656551; 2005-703882; 2006-633556; 2007-070172

MRPX Acc No: N2002-399463

Site controller has logic receiving device identifiers and function code and managing communications using protocols

Patent Assignee: DAVIS J (DAVI-J); PETITE T D (PETI-1); STATSIONAL SYSTEMS INC (STAT-N)

Inventor: DAVIS J; PETITE T D

Patent Family ( 3 patents, 93 countries )

Patent Number	Kind	Date	Update	Type
WO 2002012036	A1	20020214	200241	B
US 20020627584	A1	20020307	200241	E
AU 200184759	A	20030218	200244	E
WO 2002012036				

Local Applications (no., kind, date): WO 2001US24872 A 20010609; US 1999271517 A 19990318; US 1999413895 A 19991005; US 1999439059 A 19991112; US 2000223943 P 20000809; US 2001812809 A 20010320; US 2001925786 A 20010809; AU 200184759 A 20010809  
 Priority Applications (no., kind, date): US 1999271517 A 19990318; US 1999413895 A 19991005; US 1999439059 A 19991112; US 2000223943 P 20000809; US 2001812809 A 20010320; US 2001925786 A 20010809

Alerting Abstract WO A1

**NOVELTY** - Controller comprises a transceiver, network interface device (dial-up modem, ISDN card etc.) operating on a WAN and logic with look-up tables in memory for managing communication with each wireless device via a communication protocol based on paths and managing communication with the host computer via a second communication protocol (TCP-IP). The devices antenna patterns overlap to create a coverage area defining the second communication network. The first protocol is a data packet comprising a to and from address and a command number comprising a function code.

**DESCRIPTION** - There is an **INDEPENDENT CLAIM** for a method of controlling communication with a host computer.

**USE** - Controller is for monitoring or controlling remote devices via a host computer connected to a WAN.

**ADVANTAGE** - Controller minimizes cost and complexity, reducing initial installation costs

and making future expansions simple and inexpensive.

DESCRIPTION OF DRAWINGS - The figure shows an automated monitoring system.

21/25,K/1 (Item 3 from file- 350)

Derwent WPIX

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0014213296 Drawing available

WPI Acc No: 2004-399031/200437

WPIX Acc No: N2004-313078

Holom manufacturing method for factory, involves initiating processing plans based on physical condition of physical holon received through wireless transmitter

Patent Assignee: HALLEP S (HALL-I); ROBINSON P (ROBI-I); ROBITAILLE B (ROBI-I); SAY AG (SAPS-N); XU M (XUMM-I)

Inventor: HALLEP S, ROBINSON P, ROBITAILLE B, XU M

Patent Family ( 7 patents, 105 countries )

Patent Number	Kind	Date	Update	Type
US 20040088065	A1	20040506	200437	E
WO 2004040469	A2	20040513	200439	E
AU 2002278154	A1	20040525	200468	E
EP 1558976	A2	20050803	200551	E
US 6975915	B2	20051213	200561	E
AU 2003278154	A8	20051103	200529	E
EP 1558976	B1	20070404	200726	E
US 20040088065				

Local Applications (no., kind, date): US 2002284468 A 20021031; WO 2003EP12019 A 20031029; AU 2003278154 A 20031029; EP 2003769469 A 20031029; WO 2003EP12019 A 20031029; US 2002284468 A 20021031; AU 2003278154 A 20031029; EP 2003769469 A 20031029 ; WO 2003EP12019 A 20031029

Priority Applications (no., kind, date): US 2002284468 A 20021031

Alerting Abstract US A1

NOVELTY - A method involves sensing physical conditions such as movement, pressure of physical holon (106) using a sensor (219). A physical condition is transmitted to a cell holon using wireless transmitter (220). Based on the physical conditions, the processing plans e.g. sequence of manufacturing task are initiated.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

holon manufacturing instruction; and  
holon manufacturing system.

USE - For manufacturing holon e.g. pallets, blending vessel, agitator, pump, filter, motor, manifold, portable tank etc. in factory.

ADVANTAGES - Achieves fast, reliable and secured holon manufacturing using wireless transmitter.

DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the holon

106 physical holon

204 CPU;

210 sensor

220 transmitter

226 receiver

Original Abstracts: ...of manufacturing equipment elements are individually equipped with various sensors (210) and effectors (212), and associated with a software agent (1002) running on a dedicated processor. The elements may be made mobile, perhaps by placing the individual pieces of equipment on a movable trolley, and further equipped with a wireless transceiver (220, 226, 206, 1004). In this way, the elements may be easily assembled for

a manufacturing process, with minimal human intervention required. Moreover, the elements... customizable goods...

21/25,K/4 (Item 4 from file: 350)

Derwent WPIX

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0012554582 Drawing available

WPI Acc no: 2003-031566/200303

XRAM Acc no: C2003-007372

XREF Acc No: N2003-024346

**Injection molding machine with programmable electronic system for monitoring and control, is operated through bidirectional real-time wireless interface**

Patent Assignee: ENGEL MASCHINEN GMBH (ENGEM)

Patent Family (1 patents, 1 country)

Patent Number	Kind	Date	Update	Type
DE 20204359	U1	20020606	200303	B

Local Applications (no., kind, date): DE 20204359 U 20020319

Priority Applications (no., kind, date): AT 2001439 A 20010320

#### Alerting Abstract DE U1

**NOVELTY** - The arrangement includes a bidirectional real-time wireless interface (1) for data transfer from or to an external, preferably portable data processing unit (18).

**DESCRIPTION** - Preferred features: The interface communicates directly with the external computer, without using other data transmission units. It is infra red, preferably according with the IrDA standard. It alternatively comprises radio equipment transmitting electromagnetic signals. The computer includes one or more of a transceiver, microprocessor, memory and mains-independent battery and/or is portable. The computer has an operational interface comprising e.g. a keyboard and/or touchpad and/or display and/or touch screen. A printer is employed. Data is exchanged in real time. Automatic recognition and/or contact is executed, when the computer enters the communication range of the wireless interface. Before exchanging data, there is an authentication check. Data is transmitted between the internal machine control system (16) and the computer, and commands are transmitted through it to the machine (14). Servicing is carried out via the interface. Software, especially control programs, are exchanged through the interface which can be used to check the program version. Data and/or commands are exchanged, the external computer function being performed by a mobile telephone, operating through a mobile telephone network, preferably in real time.

**USE** - An arrangement for data exchange between a computer or mobile phone and an injection molding machine. Data includes authentication checks, commands, programs and servicing information.

**ADVANTAGE** - The method avoids the costs and complication of cabling between the machine(s) and a separate PES-based control system. Control and data transfer can be carried out conveniently and flexibly near the machines, e.g. in the same factory building. Various types of data processor can be used, e.g. a suitably-equipped laptop computer, PDA, palm top or a mobile phone.

**DESCRIPTION OF DRAWINGS** - A block diagram illustrates the interface between a laptop computer and the machine.

1 interface

2 transceiver

15 hard drive

14 injection molding machine

16 internal machine control system

18 mobile data processing unit

21/25,K/5 (Item 5 from file: 350)

Derwent WPIA

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0612477511 Drawing available

WPI Acc no: 2002-424682/200245

Felated WPI Acc No: 1998-347510; 2002-489034; 2002-696826

WPIA Acc No: N0602-333065

Wireless network for use in factory, warehouse, has gateway to establish pseudo full duplex audio communication link between portable network telephones

Parent Assignee: ANGLE A S (ANGLE-1); O'HAGAN T P (OHAG-1)

Inventor: ANGLE A S; O'HAGAN T P

Parent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Update	Type
US 6166771	B1	20020402	200245	B

Local Applications (no., kind, date): US 1995493480 A 19950621; US 1997867076 A 19970602;  
US 199882741 A 19980521

Priority Applications (no., kind, date): US 1997867076 A 19970602; US 1995493480 A  
19950621; US 199882741 A 19980521

#### Alerting Abstract US B1

NOVELTY - A gateway (25) coupled to a backbone network (20) of the wireless network (10), receives portion of the audio communication, and establishes a pseudo full duplex audio communication link between the portable network telephones (100a,100b). The gateway includes a memory for storing information relating to the portable network telephones.  
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

Portable network telephone; Telephonic session conducting method; and  
Communication method in wireless network

USE - Wireless network installed in the factory, warehouse, store and other facilities, for communicating data and audio messages.

ADVANTAGE - Enhances speed, relative timing and delivery of audio or voice packets, thereby mimicking real time full duplex audio communications, by using pseudo full duplex audio communication protocol in the network.

DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the portable data collection network.

10 Wireless network

20 Backbone network

25 Gateway

100a,100b Portable network telephones

Original Abstracts: ...transceiver for wirelessly communicating both data and audio communication with the backbone via one of the plurality of access points. The wireless network includes a host computer coupled to the backbone which receives at least a portion of the data transmitted from the plurality of portable data terminals and a gateway coupled...

Claims: A wireless network including a backbone and a plurality of access points coupled to the backbone, the wireless network comprising: a plurality of portable network telephones each including: a processor; at least one of a keypad and a barcode reader coupled to the processor for entry of data; audio communication circuitry coupled to the processor for converting audio communication between an analog and digital format; and an RF transceiver for wirelessly communicating the data and the audio communication with the backbone via one of the plurality of access points; a host computer coupled to the backbone, wherein the host computer receives at least a portion of the data from the plurality of portable network telephones, and a gateway coupled to the backbone, wherein the gateway receives at least a portion of the audio communication and establishes a

pseudo full..

21/25.N/5 (Item 4 From File: 350)

Herwent WPTX

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0011000251 Drawing available

WPI Acc no: 2001-625402/200172

WPIX Acc No: N0001-465157

Factory floor tablet automation system for storing manufacturing data and for collecting and processing data generated during manufacturing has server computer, several portable tablet devices and transceivers

Patent Assignee: RAPP R (RAPP-I); RAPP R W (RAPP-L)

Inventor: RAPP R W

Patent Family ( 6 patents, 92 countries )

Patent Number	Kind	Date	Update	Type
WO 2001050405	A1	20010712	200172	B
AU 200124733	A	20010716	200172	E
US 6400597	B1	20020604	200242	E
EP 1247240	A1	20021009	200267	E
US 20040117233	A1	20040517	200442	B
US 7079906	B2	20060718	200648	E
WO 2001050405				

Local Applications (no., kind, date): WO 2001US208 A 20010104; AU 200124733 A 20010104; US 2000478251 A 20000106; EP 2001900336 A 20010104; WO 2001US208 A 20010104; US 2000478251 A 20000106; US 2000724115 A 20001128; US 2003639565 A 20030812; US 2000478251 A 20000106; US 2000724115 A 20001128; US 2003639565 A 20030812  
Priority Applications (no., kind, date): US 2000478251 A 20000106; US 2000724115 A 20001128; US 2003639565 A 20030812

#### Alerting Abstract WO A1

NOVELTY - Shop floor tablets fitted are with computer work stations which can communicate with server using radio transceivers.

DESCRIPTION - The system includes a server computer with a processor unit and storage device. The storage device maintains several databases including a job assignment database, an operator assignment database, a job description database, a drawing repository, a process control database and a time keeping database. Each of several portable tablet devices has a processor unit, a memory device, a display screen, an input/output device and a tablet antenna. One or more transceivers are located throughout the facility. Each transceiver is connected to the server computer. The portable tablet devices are in wireless communication with the server computer through the transceivers and tablet antennas.

A job is assigned to an operator in the facility and one of the portable tablet devices is allocated to the operator. The operator accesses and receives information from the server computer and the storage device through the allocated portable tablet device. The server computer receives, stores and processes information from the operator through the allocated portable tablet device for tracking a status of the job and for tracking time allocation of the operator.

INDEPENDENT CLAIMS are included for a method of collecting, processing, storing and accessing information for jobs performed by several operators.

USE - For factory automation and tracking

ADVANTAGE - Allows manager to instantly view employee and job information so that he can respond to customer inquiries and can quickly reallocate resources to meet scheduling requirements. Manufacturing data is accessible from various locations throughout factory.

DESCRIPTION OF DRAWINGS - The figure shows the main components of a paperless tablet system.

**Original Abstracts:** ...and processing manufacturing data generated at one or more facilities during manufacturing, and making manufacturing data accessible from the one or more facilities. A local **processor** is located at each facility, and a plurality of portable tablet devices are located in each facility. One or more **transceivers** located throughout each facility, each **transceiver** being connected to the local **processor** in each facility. The plurality of portable tablet devices is in wireless communication with the local **processor** through the **transceivers** and the tablet antennas. A server computer having a **processor** unit and storage device is connected to local **processors** through a network. ...

**Claims:** ...manufacturing, and for making manufacturing data accessible from various locations throughout the facility; the factory floor tablet automation system comprising: a server computer having a **processor** unit and storage device; said storage device maintaining a plurality of databases including a job assignment database, an operator assignment database, a job description database, a drawing repository, a process control database, and a time keeping database; a plurality of portable tablet devices, each of said plurality of portable tablet devices having a **processor** unit, a memory device, a display screen, an input/output device and a tablet antenna; and one or more **transceivers** located throughout the facility, each **transceiver** being connected to said server computer; said plurality of portable tablet devices being in wireless communication with said server computer through said **transceivers** and said tablet antennas; wherein a job is assigned to an operator in the facility and one of said plurality of portable tablet devices is allocated to said operator; said operator accessing and receiving information from said server computer and said storage device through said a...

21/25,K/7 (Item 7 from file: 350)

Derwent WPIX

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0007945538 Drawing available

WPI Acc no: 1997-034691/199702

Multi mode spread spectrum radio communication system for LAN, e.g. in factory - has fixed and mobile transceivers, each capable of various modes of spread spectrum operation, and control system that dynamically chooses mode

Patent Assignee: BROADCOM CORP (BROA-N); INTERMEC TECHNOLOGIES CORP (INTR-N); KINNEY P W (KINN-I); KOENCK S E (KOEN-I); KUBLER J J (KUBL-I); MAHANY R L (MAHA-I); MEIER R C (MEIB-I); MILLER P (MILL-I); NORAND CORP (NORA-N)

Inventor: KINNEY P W; KOENCK S E; KUBLER J J; MAHANY R L; MEIER R C; MILLER P

Patent Family ( 16 patents, 20 countries )

Patent Number	Kind	Date	Update	Type
WO 1996038925	A1	19961205	199703	B
AU 199664762	A	19961218	199714	E
US 6665536	B1	20031216	200382	E
US 6597415	B1	20040224	200415	E
US 20040038647	A1	20040226	200416	E
US 20040042421	A1	20040304	200417	E
US 6714983	B1	20040330	200423	E
US 20040077152	A1	20040422	200428	E
US 20040077353	A1	20040422	200428	NCE
US 20040166695	A1	20040826	200457	E
US 20050048763	A1	20050303	200517	E
US 7013138	B2	20060314	200620	E
US 20060182674	A1	20060817	200655	E
US 7107052	B2	20060912	200660	E
US 20060276338	A1	20061130	200680	E

US 29060379329	A1	29961130	D00580	IN
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WO 1996038925

Local Applications (no., kind, date): ...[searcher deleted these..]

Priority Applications (no., kind, date): US 1989339330 A 19890414; US 1989364594 A 19890607; US 1990467695 A 19900118; WO 1990US3282 A 19900607; US 1990558895 A 19900725; US 1991660615 A 19910225; US 1991735128 A 19910722; US 1991748150 A 19910821; US 1992835710 A 19920212; US 1992854115 A 19920318; US 1992876776 A 19920428; US 1992876629 A 19920430; US 1992888908 A 19920612; US 1992997693 A 19921223; US 1993277140 A 19930305; US 1993329901 A 19930427; US 1993362457 A 19930511; US 199371555 A 19930604; US 199376340 A 19930611; US 199381411 A 19930622; US 199385662 A 19930629; US 199397462 A 19930726; US 1993101254 A 19930803; US 1993107470 A 19930817; US 1993513658 A 19930817; US 1993114872 A 19930821; US 1993147377 A 19931103; US 1993154020 A 19931117; US 1993168478 A 19931216; US 1993170121 A 19931220; WO 1993US12628 A 19931223; US 1994154178 A 19940209; US 1994297386 A 19940216; US 1994197392 A 19940216; US 1994198453 A 19940218; US 1994198464 A 19940222; US 1994205639 A 19940304; US 1994226256 A 19940411; US 1994238189 A 19940504; WO 1994US5037 A 19940506; US 1994256285 A 19940610; US 1994275821 A 19940610; US 1994267758 A 19940705; US 1994279148 A 19940722; US 1995431077 A 19950427; US 1995457697 A 19950601; US 1995487609 A 19950607; US 1995513658 A 19950811; US 1995544815 A 19951018; US 1996665348 A 19960513; WO 1996US9474 A 19960603; US 1996695086 A 19960813; US 1996772895 A 19961224; US 1997878357 A 19970627; US 1999357429 A 19990720; US 2000973195 A 20000305; US 2003684707 A 20030826; US 2003684650 A 20031014; US 2003684747 A 20031014; US 2004787443 A 20040226

#### Alerting Abstract WO A1

The radio communication system includes both fixed transceivers, e.g. equipment monitoring units, and moving transceivers, e.g. telephones. Pref. a LAN system uses these radio links to integrate acquisition and control functions. The cellular transceivers are capable of operating in a number of spread spectrum modes, e.g. code based and frequency hopping modes.

The other transceivers may have only one mode or a number of modes of operation. As transceivers attach, detach or encounter poor signals, the system dynamically re-evaluates the possible modes and selects the best mode available.

ADVANTAGE - Provides dynamic adaptation to conditions and transceivers available to optimise communication.

**Original Abstracts:** A portable data terminal includes at least two communication transceivers having different operating characteristics, one for conducting data communications on a wired subnetwork and one for conducting data communications on a wireless subnetwork. A communication processor converts data received by the communication transceivers to a predetermined format for a base module and converts data in a predetermined format from the base module to a format for transmission by a selected one of the first and second communication transceivers, thereby isolating the base module from differing characteristics of the transceivers. The communication processor is arranged to relay communications received by one transceiver for re-transmission by the other transceiver and to transfer communications from one subnetwork to the other, without activating the base module...

25/25,K/17 (item 17 from file: 350)

Derwent WPIA

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0914111408

Drawing available

WPI Acc no: 2004-295722/200427

KREFX Acc No: N2004-234871

Location-based machine information providing method to wireless interface device (WID) involves identifying information about specific machine when WID is located within machine zone, after which information is sent to WID for presentation



Patent Assignee: AWAD F (AWAD-I); BRANDT D D (BRAN-I); FARCHMIN D W (FARC-I); PAI R M (PAIR-I); ROCKWELL AUTOMATION TECHNOLOGIES INC (ROCN)  
 Inventor: AWAD F; BRANDT D D; FARCHMIN D W; PAI R M  
 Patent Family ( 7 patents, 99 countries )

Patent Number	Kind	Date	Update	Type
WG 20040229739	A2	20040408	200427	E
AU 2003270888	A1	20040419	200462	E
US 20040293930	A1	20041014	200468	E
EP 1552350	A2	20050713	200546	E
AU 2003270888	A8	20051103	200629	E
KR 2005059267	A	20050617	200641	E
US 7116993	B2	20061003	200665	E

WG 2004029739

Local Applications (no., kind, date): WG 2003US30197 A 20030924; AU 2003270888 A 20030924; US 2002259089 A 20020927; EP 2003752602 A 20030924; WO 2003US30197 A 20030924; AU 2003270888 A 20030924; WG 2003US30197 A 20030924; KR 2005705315 A 20050226; US 2002259089 A 20020927

Priority Applications (no., kind, date): US 2002259089 A 20020927

#### Alerting Abstract WG A2

**NOVELTY** - The zones within a facility (10) including a separate machine zone with the adjacent machines (M1-M10) are identified. The location of a wireless interface device (WID) (30) within the facility is identified and judged whether it is within the machine zone. The information related to a specific machine are identified when the WID location is within the machine zone, and are sent to the WID for presentation.

**DESCRIPTION** - An INDEPENDENT CLAIM is also included for a location-based machine information system.

**USE** - Applicable for providing location-based information about machines to wireless interface device used in monitoring or control of machines in industrial or manufacturing facility.

**ADVANTAGE** - Provides an inexpensive automated facility interfacing system that provides small number of WIDs to facility operators such that each WID can be rapidly and automatically reconfigured to provide machine operating characteristics and control tools. Attains reduction of processing cost since existing wireless communication systems are utilized. Reduces number of process to be performed by WID operator to obtain information from facility machines.

**DESCRIPTION OF DRAWINGS** - The figure shows the schematic diagram illustrating an industrial facility and zone aspects.

10 Facility

30 WID

38 System processor/controller

40 Database

M1-M10 Machines

25/25, Y/20 (Item 20 from file: 350)

Darwent WPIX

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0013255867 Drawing available

WPI Acc no: 3003-241367/200332

Related WPI Acc No: 2005-628972

KRPX Acc No: N2003-273046

Field asset managing apparatus for business applications, transmits packaged uncorrected error condition to network operation center through wireless network

Patent Assignee: ISOCHRON DATA CORP (ISOC-N); ISOCHRON LLC (ISOC-N)

Inventor: CORTES M A; MAY J A; NERDEL W I

Patent Family ( 2 patents, 1 countries )

Patent Number	Kind	Date	Update	Type
US 20030069313	A1	20030109	200332	B
US 6925335	B2	20050802	200551	S

US 20030069313

Local Applications (no., kind, date): US 2001899527 A 20010705; US 2001899527 A 20010705

Priority Applications (no., kind, date): US 2001899527 A 20010705

Alerting Abstract US A1

NOVELTY - A communication interface coupled to **processor** and memory (130) communicates with a **controller** board coupled to a field asset (105). A program stored in the memory corrects at least one field asset condition and packages uncorrected error conditions for transmission. A **wireless** network interface transmits the packaged error conditions to a network operation center (120) through a **wireless** network (115).

DESCRIPTION - An INDEPENDENT CLAIM is included for internet enabled field asset management system.

USE - For use in business applications for managing vending machines located at school, office building, and across large metropolitan area and oil company located at different states of country.

ADVANTAGE - Enables remote evaluation of field asset performance, by transmitting the packaged error conditions to the network operation center through wireless network

DESCRIPTION OF DRAWINGS - The figure shows a schematic representation of the field asset management system.

105 field asset

115 wireless network

120 network operation center

130 memory

**Claims:** What is claimed is: 1. An apparatus for managing a field asset comprising: at least one **processor**; memory operably coupled to the at least one **processor**; a communications interface operably coupled to the **processor** and the memory; the communications interface operable to communicate with a **controller** board operably coupled to the field asset; a program of instructions storable in the memory and executable in the **processor**; the program of instructions operable to correct at least one field asset error condition and further operable to package uncorrected error conditions for transmission; a **wireless** network interface operably coupled to the memory and the **processor**; and the **wireless** network interface operable to transmit the packaged error conditions to a network operations center via a **wireless** network. 2. An apparatus for managing a vending machine comprising: at least one **processor**; memory operably coupled to the at least one **processor**; a communications interface operably coupled to the **processor** and the memory; the communications interface operable to communicate with a **controller** board operably coupled to the vending machine; a program of instructions storable in the memory and executable in the **processor**; the program of instructions operable to independently correct at least one vending machine error condition and further operable to package uncorrected error conditions for transmission; a **wireless** network interface operably coupled to the memory and the **processor**; and the **wireless** network interface operable to transmit the packaged error conditions to a network operations center via a **wireless** network and to receive commands from the network operations center transmitted via the **wireless** network, said commands operable to correct at least one uncorrected error condition on the vending machine. »

25/25,K/21 (Item 21 from file: 350)

Derwent WPIK

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601337864 Drawing available

WPI Acc no: 2003-226133/200321

Related WPI Acc No: 2002-413956; 2003-028795; 2003-057491; 2003-128204; 2003-128205;  
2003-128697; 2003-209235; 2003-380354; 2005-210871

XRPX Acc No: N2003-175560

Automatically taking corrective measures within process plant comprises receiving data pertaining to status of device, automatically generating order in response to detected problem with device, and communicating order

Patent Assignee: ERYUREK E (ERYU-I); FISHER-ROSEMOUNT SYSTEMS INC (ROEC); HARRIS S (HARR-1); HOKENESS S N (HOKE-I); MARSHALL L (MAR3-I)

Inventor: ERYUREK E; HARRIS S; HOKENESS S N; MARSHALL L; MARSHALL L D

Patent Family ( 2 patents, 1 countries )

Patent Number	Kind	Date	Update	Type
US 20020169514	A1	20021114	200321	B
US 6965806	B2	20051115	200575	E

US 20020169514

Local Applications (no., kind, date): US 2001273164 P 20010301; US 200206159 A 20020228;  
US 200206159 A 20020228

Priority Applications (no., kind, date): US 2001273164 P 20010301; US 200206159 A 20020228

#### Alerting Abstract US A1

NOVELTY - Corrective measures within a process plant are automatically taken by receiving data pertaining to the status of a device; automatically generating an order in response to a detected problem with the device based on the data of the status of the device, where the order relates to taking corrective measure(s) to solve the problem; and communicating the order.

DESCRIPTION - An INDEPENDENT CLAIM is included for a system to be used in a process control environment for automatically taking corrective measures, which comprises a computer readable memory; a first routine stored on the computer readable memory and adapted to be executed on a processor to receive data pertaining to the status of a device; a second routine stored on the computer readable memory and adapted to be executed on a processor to automatically generate an order in response to the detected problem with the device; and a third routine stored on the computer readable memory and adapted to be executed on a processor to communicate the order.

USE - Used for automatically taking corrective measures within a process plant.

ADVANTAGE - The process aids in asset utilization and optimization in a process plant.

DESCRIPTION OF DRAWINGS - The figure depicts a display that may be provided by a graphical user interface to enable a user to quickly investigate information within a plant.

Technology Focus ...may comprise generating an order for a replacement device. The order may be communicated via the Internet, via a telephone communication link, or via a wireless communication link. Generating an order comprises scheduling an order to be fulfilled prior to failure of the device. The process further comprises tracking the status... the report. Receiving data comprises receiving data pertaining to the status of a two-wire device, a three-wire device, a four-wire device, a wireless device, a device having a processor, a variable speed driver, a controller, a multiplexer, rotating equipment, an actuator, power generation equipment, power distribution equipment, a transmitter, a sensor, a control system, a transceiver, a valve, a positioner...

25/25,X/24 (Item 24 from file: 350)

Derwent WPIX

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0012469054 Drawing available

WPI Acc No: 2002-415402/200244

Related WPI Acc No: 1999-443032; 2000-236839; 2001-024340; 2001-366587; 2001-416523;  
2001-457133; 2001-646979; 2002-009859; 2002-279826; 2002-350700; 2002-350799; 2002-  
382547; 2002-415401; 2002-415403; 2002-442981; 2002-673107; 2003-039528; 2003-118989;  
2003-505902; 2003-754935; 2003-800275; 2003-842592; 2004-293943; 2004-496981; 2005-  
010611; 2005-235939; 2005-401488; 2005-626511; 2005-656551; 2005-783882; 2005-633556;  
2007-070172

XREF Acc No: N2002-326777

Remote devices connection system for automatic monitoring systems site controller  
involves transceivers with unique identifier which send sensor data to site controllers  
Patent Assignee: STATISIGNAL SYSTEMS INC (STAT-N)  
Inventor: ALDORETTA D P; DAVIS J; PETITE T D  
Patent Family ( 2 patents, 92 countries )

Patent Number	Kind	Date	Update	Type
WO 2002013413	A1	20020214	200244	E
AU 200179249	A	20020218	200244	E

WO 2002013413

Local Applications (no., kind, date): WO 2001US24968 A 20010809; AU 200179249 A 20010809  
Priority Applications (no., kind, date): US 2000223923 P 20000809; US 2000704150 A  
20001101

#### Alerting Abstract WO A1

NOVELTY - Transceivers (135) each with unique identifier send data from sensors (130,140) to site controllers (150). Site controllers send data via Internet to application server (110) which controls monitoring system. If necessary transceiver data may reach site controller via combined transceiver/repeaters (125).

USE - Interconnecting remote sensors in automated monitoring system.

ADVANTAGE - Overcomes need for large amounts of wiring or wireless transmissions at unacceptable power levels.

DESCRIPTION OF DRAWINGS - The drawing shows the system

110 Application server

125 Combined transceiver/transceiver repeater

130,140 Remote device

135 Transceiver

150 Site controller

Original Abstracts: ...s wireless communication network (165). The automated monitoring system (100) may be configured for monitoring and controlling the plurality of remote devices (140) using a host computer adapted to communicate with the site controller (150) via a communication network (120). Briefly described, in one embodiment, the system (100) comprises a plurality of transceivers (135) and a plurality of repeaters... of remote devices (140) and configured to receive a sensor data signal from the corresponding remote device (140) and provide a data message over the wireless communication network (165) using a predefined communication protocol...

25/25,K/25 (Item 25 from file: 350)

Derwent WPIX

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0009908752 Drawing available

WPI Acc no: 2000-208061/200019

XREF Acc No: N2000-155092

Measurement sensor network for monitoring of chemical and physical quantities in a process control environment where the sensors are connected to a central computer via an existing or communication medium such as radio or phone

Patent Assignee: ENDRESS & HAUSER CONDUCTA GES MESS (ENDR)

Inventor: BABEL W

Patent Family ( 3 patents, 26 countries )

Patent Number	Kind	Date	Update	Type
EP 980046	A1	20000216	200019	B
US 20020163939	A1	20021225	200313	NCE
US 6625548	B2	20030923	200364	NCE
EP 980046				

Local Applications (no., kind, date): EP 1998115124 A 19980812; US 199809344 P 19980908;  
 US 1999291510 A 19990908 ; US 2002196137 A 20020717; US 199609344 P 19960908; US  
 1999391510 A 19990908; US 2002196137 A 20020717

Priority Applications (no., kind, date): EP 1998115124 A 19980812; US 2002196137 A  
 20020717

Alerting Abstract EP A1

NOVELTY - Sensors (2,3,13,14) for measurement of physical or chemical properties of gases, liquids or fluids are connected to a central control and analysis computer unit (9) via a communications medium (5), that can be radio, telephone, power, Internet, intranet or any existing communications medium.

USE - The invention is for use in large industrial or chemical plants where there are a large number of sensors for process control.

ADVANTAGE - Use of an existing communications network or a radio-network means that all the sensors can be connected without the expense of setting up cable connections between sensors and central computer.

DESCRIPTION OF DRAWINGS - Figure shows a block diagram of the invention

2,3,13,14 measurement sensors

9 central analysis and control computer

5,12 communications media

25/25,K/26 (Item 26 from file: 350)

Darwent WPIX

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0008464653

WPI Acc no: 1997-435450/199740

XRAM Acc no: C1997-139774

XRPX Acc no: N1997-362361

Machine control process supervision system device with CAN-protocol e.g. weaving looms in weaving shed - builds up existing CAN-system and introduces repetition function over difficult stretches to create on temporary or longer term basis two separately working CAN-systems instead of one

Patent Assignee: FREDRIKSSON L (FPED-I); KVASER CONSULTANT AB (KVAS-N)

Inventor: FREDRIKSSON L

Patent Family ( 19 patents, 20 countries )

Patent Number	Kind	Date	Update	Type
NO 1997031454	A1	19970828	199740	B
GB 199600552	A	19970823	199745	B
SE 199600553	A	19970823	199745	B
SE 199700718	A	19970823	199745	B
EP 682343	A1	19981209	199902	B
JP 20000505610	N	20000509	200032	B
SE 515125	C2	20010611	200134	B
SE 515347	C2	20010716	200143	B
US 20020041688	A1	20020411	200227	B
US 20020044660	A1	20020418	200228	B
US 6467039	B1	20021015	200271	B

SE 518453	C2	20021008	200273	E
US 20030002681	A1	20030102	200305	E
JP 3754456	B2	20060315	200620	E
EP 882342	B1	20060705	200644	E
DE 69736278	B	20060817	200655	E
US 7160042	B2	20060829	200657	E
US 7160196	B2	20060829	200657	E
DE 69736278	T2	20070606	200737	IC
WO 1957021454				

Local Applications (no., kind, date): WO 19975E211 A 19970212; SE 1996652 A 19960222; SE 1996653 A 19960222; SE 1996652 A 19960222; SE 1997718 A 19970228; EP 1997505523 A 19970212; WO 19975E211 A 19970212; JP 1997530050 A 19970212; WO 19975E211 A 19970212; SE 1996652 A 19960222; SE 1996653 A 19960222; US 1998101748 A 19980831; US 2001847326 A 20010503; US 1998101748 A 19980831; US 2001847326 A 20010503; WO 19975E211 A 19970212; US 1998101748 A 19980831; SE 1996652 A 19960222; SE 1997718 A 19970228; US 1998101748 A 19980831; US 2002219351 A 20020816; JP 1997530050 A 19970212; WO 19975E211 A 19970212; EP 1997505523 A 19970212; WO 19975E211 A 19970212; DE 69736278 A 19970212; EP 1997505523 A 19970212; WO 19975E211 A 19970212; US 1997101748 A 19970212; WO 19975E211 A 19970212; US 2001847326 A 20010503; US 1998101748 A 19980831; US 2001847326 A 20010503; DE 69736278 A 19970212; EP 1997505523 A 19970212; WO 19975E211 A 19970212

Priority Applications (no., kind, date): SE 1996652 A 19960222; SE 1996653 A 19960222; SE 1997718 A 19970228

#### Alerting Abstract WO A1

The device includes two or more communications parts (106A,114A) which form part of a CAN-system, respectively between the CAN-system and a control unit, and which are communicable via one or more **wireless connections**. When a transmission is made from a first transmission part (114A) to a second communication part (106A), the parts operate with a signal protocol which takes no account of arbitration and/or confirmation functions found in the CAN-system. A particular receiving communication part executes or assists in conversion of the signal protocol to the signal protocol of the CAN-system. The communication parts can be coupled to the CAN-system, which in the non-connected-up or non-activated state of the communication parts form a unitary system (201A). In the connected-up or activated state of the communication parts two CAN-systems are formed (202A,205A) which operate separately relative to each other, with a protocol which is distinct from the CAN-protocol, e.g. ethernet, wave-raider, a.t.c.

**ADVANTAGE** - Reduces susceptibility of items to theft. **Radio-communication between control units and machines in machinery stocks** can be economically established even where machines operate with CAN-protocol. Connections can be established for even poorly accessible locations.

**Claims:** ...755) which comply with a signal protocol of the CAN-system, and wherein the transmitting and receiving communication members are communicable via one or more **wireless connections** (115, 116), characterised in that the transmitting communication member related to a module, or to said **control unit** or control desk, takes no account...  
... are removed from bit strings (702) constituting the second messages in order to obtain the first messages, in that the transmitting communication member comprises first CPU (602) and CAN-Controller (604) that removes the arbitration and/or acknowledgement bits from said bit strings (702), and in that the receiving communication member comprises second CPU (608) and CAN-Controller (607) which causes entering of missing arbitration and/or acknowledgement bits into the bit strings in order to create the second messages....

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0014162652 Drawing available

WPI Acc no: 2004-347704/200432

Wireless group call control method in wireless dispatch communication environment, involves setting dynamic group of mobile stations based on replies received from stations in response to transmitted message

25/26/15 (Item 15 from file: 350)

Derwent WPIX

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0014131746 Drawing available

WPI Acc no: 2004-316386/200429

Radio controller for controlling and monitoring device mounted on industrial robot, has radio communication unit having processor for handling radio communication with robot-mounted device, and control loop for control of device actuators

25/26/16 (Item 16 from file: 350)

Derwent WPIX

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0014130667 Drawing available

WPI Acc no: 2004-314627/200429

Image processing device for use with injection molding machine, uses remote computer to receive wireless transmission of image of machine parts formed by machine, for analysing quality of parts

# Controlling of machinery or engines within a factory or industrial site using a portable controller with a wireless interface so that it can be used with independent plant of varying types

Publication number: DE10129189

Publication date: 2003-01-02

Inventor: MUELLER CHRISTOPH (DE)

Applicant: DM TECHNOLOGIES GMBH & CO (DE)

Classification:

- International: G05B19/409; G08C17/02; G05B19/409; G08C17/00; (IPC1-7). G06F19/00

- European: G05B19/409; G08C17/02

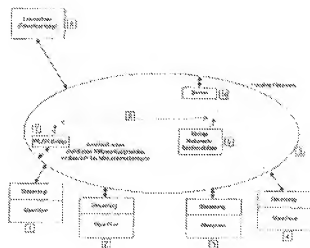
Application number: DE20011029189 20010619

Priority number(s): DE20011029189 20010619

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## Abstract of DE10129189

Mobile operating unit (9) for controlling several machines (1-4) via two-way communication between it and the machines. Optimally the machines are controlled via a wireless network connection (5, 7, 8). The operating unit can be a wearable computer, a web-pad or a pen-PC. An independent claim is made for a method for controlling a number of machines using wireless communication with a mobile operating unit.



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